

## CLAIMS

1. A radio base station apparatus comprising:  
reception weight setting means for setting a  
plurality of reception weights;

5 adaptive array antenna receiving means for  
performing adaptive array antenna reception of signals  
from said plurality of communication terminals in  
directional patterns formed with said reception weights;  
and

10 path search means for combining power addition  
values for each directional pattern received by an  
adaptive array antenna and creating a delay profile,  
performing finger assignment using this delay profile,  
and outputting despreading timing used in weight control  
15 for adaptive array antenna reception.

2. A radio base station apparatus comprising:  
reception weight calculating means for grouping a  
plurality of communication terminals and finding a  
reception weight for each group;

20 adaptive array antenna receiving means for  
performing adaptive array antenna reception of signals  
from said plurality of communication terminals in  
directional patterns formed with said reception weights;  
and

25 path search means for combining power addition  
values for each directional pattern received by an  
adaptive array antenna and creating a delay profile,  
performing finger assignment using this delay profile,

09936729.09701

and outputting despreding timing used in weight control for adaptive array antenna reception.

3. A radio base station apparatus comprising:  
a plurality of diversity antennas;

5 reception weight calculating means for grouping a plurality of communication terminals and finding a reception weight for each group;

adaptive array antenna receiving means for performing adaptive array antenna reception respectively  
10 with said diversity antennas of signals from said plurality of communication terminals in directional patterns formed with said reception weights; and

path search means for combining power addition values for each directional pattern received by an  
15 adaptive array antenna and creating a delay profile, performing finger assignment using this delay profile, and outputting despreding timing used in weight control for adaptive array antenna reception.

4. The radio base station apparatus according to  
20 claim 1, further comprising threshold value decision means for making a threshold value decision with respect to a power addition value, wherein said path search means finds a power combination value from output after said threshold value decision.

25 5. The radio base station apparatus according to claim 1, wherein said path search means performs finger assignment using a signal received by an adaptive array antenna with a reception weight for each group found with

0936729-091701

said despreading timing.

6. A communication terminal apparatus that performs radio communication with a radio base station apparatus, said radio base station apparatus comprising:

5 reception weight setting means for setting a plurality of reception weights;

adaptive array antenna receiving means for performing adaptive array antenna reception of signals from said plurality of communication terminals in  
10 directional patterns formed with said reception weights; and

path search means for combining power addition values for each directional pattern received by an adaptive array antenna and creating a delay profile,  
15 performing finger assignment using this delay profile, and outputting despreading timing used in weight control for adaptive array antenna reception.

7. A radio communication method comprising:

a reception weight calculating step of grouping a  
20 plurality of communication terminals and finding a reception weight for each group;

an adaptive array antenna receiving step of performing adaptive array antenna reception of signals from said plurality of communication terminals in  
25 directional patterns formed with said reception weights; and

a path search step of combining power addition values for each directional pattern received by an adaptive array

09036729.091701

antenna and creating a delay profile, performing finger assignment using this delay profile, and outputting despread timing used in weight control for adaptive array antenna reception.

5           8. A radio communication method comprising:

          a reception weight calculating step of grouping a plurality of communication terminals and finding a reception weight for each group;

          an adaptive array antenna receiving step of  
10 performing adaptive array antenna reception of signals from said plurality of communication terminals in directional patterns formed with said reception weights;

          a path search step of combining, after completion of threshold value decisions, power addition values for  
15 each group received by an adaptive array antenna and creating a delay profile, performing finger assignment using this delay profile, and outputting despread timing used in weight control for adaptive array antenna reception; and

20           a finger assigning step of performing finger assignment using a signal received by an adaptive array antenna.

09036729-091701